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10/589,271

04/26/2007

Robert Massen

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04/27/2010

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EXAMINER

NGUYEN, SANG H

ART UNIT

PAPER NUMBER

2886

MAIL DATE

DELIVERY MODE

04/27/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/589,271 | Applicant(s) MASSEN ET AL. | |
| | Examiner Sang Nguyen | Art Unit 2886 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 1 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/11/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 03/27/07 has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “**a compression textile**” in claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Pre-Amendment

Applicant's response to Pre-amendment filed on 04/26/07 is acknowledged. It is noted that claims 1-12 are pending in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 in line 14, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 1 in line 14, the phrase "and/or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim 1 in lines 1-12 recites the limitation "the optical detection of the spatial shape of bodies and body parts" in lines 1-3; the limitation "the measurement space visible" in line 6; the limitation "its parts" in line 7; the limitation "measurement aid" in line 8; the limitation "the spatial position and marks of this part of the measurement aid"

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visible” in line 11; and the limitation “this information is used for supplementing the description of the spatial shape digitized incompletely because of the non-visible regions”. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 in line 3; the term “and/or” is alternative.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are directed to a judicial exception; as such, pursuant to the Interim Guidelines on Patent Eligible Subject Matter (MPEP 2106), the claims must have either physical transformation and/or a useful, concrete and tangible result. Further, according MPEP 2111, begin with the broadest reasonable interpretation (BRI) of the claim in view of the specification consistent with the interpretation those skilled in the art would reach in the subject matter eligibility test (M OR T) for process claims of process flowchart.

The claims fail to include transformation from one physical state to another. Although, the claims appear useful and concrete, there does not appear to be a tangible result claimed. The practical application of the claimed invention cannot be realized until the information is conveyed to the user. **For the results to be tangible, it would need to output to a user, be displayed to a user, or stored for user in any tangible manner.**

Merely <e.g., illuminating, measuring/detecting; determining; calculating, determining geometrical information, and this information is used for supplementing,

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identifying, selecting; or interpreting etc., for example, the feature “geometrical information having height, angle, circumference, curvature of the body parts that are not visible are determined from the measured spatial position of the visible part of the measuring aid; and information are used for the supplementary description of the spatial form that is incompletely digitized with the non-visible regions” as recite **in claim 1**> would not appear to be sufficient to constitute a tangible result, since the outcome of the < e.g., measuring/detecting; determining; calculating, determining geometrical information, and this information is used for supplementing identifying, selecting; or interpreting etc., for example, the feature “geometrical information having height, angle, circumference, curvature of the body parts that are not visible are determined from the measured spatial position of the visible part of the measuring aid; and information are used for the supplementary description of the spatial form that is incompletely digitized with the non-visible regions” as recite **in claim 1**> step has not been used in a disclosed the claim require that the method particularly transform a particular article. As such, the subject matter of the claims is not patent eligible.

Method for the optical detection of the spatial shape of bodies are drawn to a judicial exception (abstract idea). For an abstract idea to be patentable, it needs to directed to a practical application or have useful, concrete and tangible result. The final determining geometrical information, and this information is used for supplementing step, while useful and concrete, does not appear tangible; i.e., merely determining geometrical information, and this information is used for supplementing step do not appear sufficient to constitute a practical result since it's not being used in a practical

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application nor made available in such a manner that its usefulness in the disclosed practical application can be realized. As such, the claim is nonstatutory under 101.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Pusch et al (U.S. Patent No. 6,383,148 or DE 199 16 978 submitted by applicant) .

Regarding claims 1-10; Pusch et al discloses a method for the optical detection of the spatial form of bodies and body parts with sections that in part are not visible, the method comprising:

the optical detection of the spatial (*i.e., the actual contour lines extending in three-dimensional space [col.4 lines 12-14]*) form of bodies and body parts (*1 of figure 1 and col.1 lines 52-56 and claim 1*) with at least one 3D digitizer (*i.e., a digital camera such as CCD camera [A, B of figure 1 and col.6 lines 14-16]*); at least one shape-retaining measuring aid (*i.e., reference object [2 of figure 1] and a reference plane [r1 of figure 1], and aid of the reference model [R of figure 2]*) is fitted in a positively locking manner to the body parts (*1 of figure 1*) that are not visible (*i.e., the rear side of the body part see figure 5*) and measurable by the 3D digitizer (*A, D of figures 1-5*) such as the measurement aids protrudes into the measuring space visible with the 3D digitizer (*i.e., digital camera [A, D of figure 5] and col.3 lines 52-62 and col.4 lines 50-*

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59), wherein at least some points (K1a, K2a, K1b, K2b of figure 5) of body parts (1 of figures 1-5) located in the visible measurement space of the measurement aid is provided with markings (*i.e.*, *two markings [col.3 lines 52-67]*) that can be evaluated by the 3D digitizer (A, D of figure 5) and wherein said markings (*i.e.*, *two markings [col.3 lines 52-67]*) are situated in a known spatial position (figures 1-5) with respect to the remaining parts of the measuring aid (col.3 lines 35 to col.3 lines 10 and col.4 line 50 to col.5 line15);

the spatial position and the markings of said part of the measuring aid that is visible to the 3D digitizer (A, D of figure 5) are determined together with the spatial form of the remaining visible body parts (*1 of figures 1-5 and col.3 lines 12-35 and col.4 lines 12-38*);

geometrical information having height, angle, circumference, curvature of the body parts (1 of figures 1-5) that are not visible (*i.e.*, *the rear side of the body part* see figure 5) are determined from the measured spatial position of the visible part of the measuring aid (*[col.4 lines 12-27 and col.5 line 57 to col.6 line15] for example, indicated to the determination of the actual contour lines running in 3D space including height, circumference, etc. of a body part [1 of figures 1-5] and wherein those body parts which are not visible to the camera [A, D of figure 5], such as the rear side of the body part are also determined to the reference model [R of figure 2]*); and

information are used for the supplementary description of the spatial (*i.e.*, reference model [R of figure 2]) form that is incompletely digitized with the non-visible regions (col.5 line 58 to col.6 lines 15). See figures 1-5

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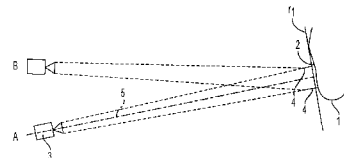
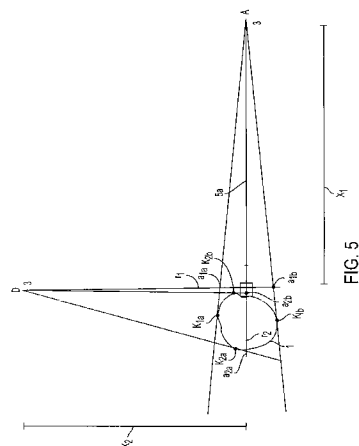


FIG. 1

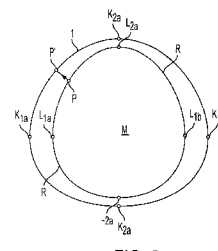


FIG. 2

Regarding claim 8; Pusch et al discloses the body part (1 of figure 1) to be digitized is a stump (col.4 lines 52-53) which is digitized together with the measurement aid (col.5 lines 18-29).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6-7 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pusch et al (U.S. Patent No. 6,383,148 or DE 199 16 978 submitted by applicant) in view of Massen (U.S. Patent No. 7,095,886).

Regarding claims 6-7; Pusch et al discloses all of features of claimed invention except for the marked measurement aid is a molded ring mechanically adaptable to the approximately cylindrical body part to be digitized by deformation and/or by changing the diameter, wherein the marked molded ring is at least partly made of a semiplastic material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Pusch et al with the marked measurement aid is a molded ring mechanically adaptable to the approximately cylindrical body part to be digitized by deformation and/or by changing the diameter,

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wherein the marked molded ring is at least partly made of a semiplastic material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claims 9-10; Pusch et al discloses all of features of claimed invention except for the body to be digitized or the body part to be digitized is clothed with an elastic or with a compression textile, tightly fitting cover which reveals marks to be evaluated by photogrammetry. However, Massen teaches that it is known in the art to provide the body (10 of figure 1) to be digitized or the body part to be digitized is clothed with an elastic or with a compression textile, tightly fitting cover which reveals marks (i.e., a marked tight-fitting envelope [40 of figure 1]) to be evaluated by photogrammetry (col.1 lines 13-25 and 43-54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine method of Pusch et al with the body to be digitized or the body part to be digitized is clothed with an elastic or with a compression textile, tightly fitting cover which reveals marks to be evaluated by photogrammetry. As taught by Massen for the purpose of determining image recordings from which the 3D shape of an object with involves only routine skill in the art.

Allowable Subject Matter

Claims 2-5 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The prior art of record, taken alone or in combination, fails discloses or render obvious method of optical detection of spatial shape of body parts comprising all the specific elements with the specific combination including of the measurement aid is made of a rigid material which is fixed at the non-visible body region such that the spatial position of this body region can be calculated from the 3D digitization of the marked part of the measurement aid protruding into the measurement space in set forth limitation of claim 2.

The prior art of record, taken alone or in combination, fails discloses or render obvious method of optical detection of spatial shape of body parts comprising all the specific elements with the specific combination including of the marked measurement aid is cuff-like and reaches around the visible and non-visible parts of an approximately cylindrical, only partly visible body part, wherein the circumference of the measurement aid is adjusted such via a marked belt that it closely rests against the approximately cylindrical body, and the position of the marked belt is chosen such that it protrudes into the visible measurement space; and from the common 3D digitization of the body part, the measurement aid and the marked belt the circumference of the body part at the point of the measurement aid is determined in set forth limitation of claim 5.

Claims 11-12 are allowed the prior art of record in the application with reason to set forth in claim 2.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Massen (7446884); Massen (7298889); Massen (7209586);

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Weinshall et al (6993179); Ellis (6549289); Glennie et al (5800364); Massen et al (5604817); Huberty (5457325).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on (571) 272-2800 ext. 86. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 24, 2010
/SN/

/Sang Nguyen/
Primary Examiner, Art Unit 2886

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